

**Finding of No Significant Impact
for the
Twin Ranch Forest Management Project
EA #DOI-BLM-OR-M050-2010-0002-EA**

Introduction

The Medford District Bureau of Land Management, Butte Falls Resource Area (BLM) analyzed forest management activities on 736 acres of matrix lands and 16 acres of riparian reserves in the *Twin Ranch Forest Management Project Environmental Assessment* (EA). The EA analyzed the potential impacts of the following forest management activities: regeneration harvest, shelterwood harvest, selection harvest, commercial thinning, density management, riparian thinning, tree planting, and slash disposal (hand piling and burning, lopping and scattering, and biomass utilization). Road projects analyzed in the EA to support forest management activities were road renovation and improvement, road decommissioning, temporary spur road construction, and road realignment. The BLM analyzed a no-action alternative and three alternatives containing a variety of forest management activities and road projects.

The Twin Ranch Project Area is located in the Butte Falls Resource Area in 3, sixth field watersheds within the Big Butte fifth field watershed: Upper South Fork Big Butte Creek, Lower South Fork Big Butte Creek, and North Fork Big Butte Creek. The majority of the proposed forest management activities (86 percent) are focused in the Upper South Fork Big Butte Creek sixth field watershed.

The Project Area is located on BLM-administered lands in sections 27 and 35 in Township 34 South, Range 3 East; and sections 1, 2, 3, 11, 12, and 17 in Township 35 South, Range 3 East; Willamette Meridian; Jackson County, Oregon.

Based on the context and intensity of the impacts analyzed in the EA (p. 23-128), I have determined Alternative 4, the selected alternative, with the associated project design features from the Twin Ranch Forest Management Project, is not a major Federal action that would significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. I have also decided to defer riparian reserve thinning at this time; therefore, the impacts disclosed in the Twin Ranch EA to riparian reserves from this action will not occur.

The Twin Ranch Forest Management Project will not have significant effects beyond those described in the broader analyses conducted and disclosed in the environmental impact statements (EISs) for the Medford District Resource Management Plan and the Northwest Forest Plan, or the effects have been determined to be insignificant. Environmental effects do not meet the definition of significance in context or intensity as defined in 40 CFR § 1508.27. Therefore, an environmental impact statement is not necessary and will not be prepared.

In making this finding, I considered the following criteria as required in 40 CFR § 1508.27 by the Council on Environmental Quality for evaluating the significance of the impacts of the activities proposed in the Twin Ranch Forest Management Project.

Context

The 1995 *Medford District Record of Decision and Resource Management Plan* (ROD/RMP) addressed the need to reduce dense, overstocked, and uniform stands to increase stand vigor, growth rates, crown

differentiation, and stand complexity. The Twin Ranch project is consistent with the Medford District ROD/RMP and the effects anticipated from implementation of that plan.

Intensity

I have considered the intensity of the impacts anticipated from the Twin Ranch Forest Management Project relative to the severity of the impacts, as described in the 10 considerations for evaluating intensity in CEQ regulations [40 CFR § 1508.27(b)].

Chapter 3 of the EA (p. 23-128) details the effects of the project. None of the effects identified, including direct, indirect, and cumulative effects, are considered to be significant and all anticipated effects are of the type and within the magnitude of effects analyzed and described in the *Medford District Proposed Resource Management Plan and Environmental Impact Statement* (1994 FEIS).

1. Impacts that may be both beneficial and adverse.

Based on the analysis documented in the EA, no significant adverse or beneficial effects will result from implementing the Twin Ranch Forest Management Project. All effects are of the type and within the magnitude of effects described in the 1994 FEIS.

The EA documented the site-specific analysis of effects to the environment. Required project design features, an integral part of the Twin Ranch Forest Management project, will ensure the potential for adverse effects on resources is minimized to the extent possible.

- a) Conifer growth and timber yield from selection harvest and commercial thinning will result in increased growth rates, increased volume yields, and decreased annual mortality rate in treated stands (EA, p. 41).
- b) Soil erosion from ground-disturbing activities such as tractor yarding, temporary spur road construction, road realignment, and road renovation will be avoided or minimized because the flat to gently sloping terrain reduces potential overland flow and project design features (PDF 24-37 and PDF 42-52) from the EA (p. 19-21) will be implemented. There may be a slight increase in soil erosion during the first year until road surfaces stabilize and cutbanks and fillslopes revegetate. Soil compaction will increase slightly overall and soil productivity will be reduced slightly in harvest units; however, the long-term soil objectives in the ROD/RMP will be met. Impacts to soil were described in the EA on pages 47-53.
- c) The Twin Ranch Forest Management Project will protect riparian reserves by conducting all harvest activities outside riparian reserves in the Project Area. Specific riparian reserve project design features (PDF 8-16) from the EA (p. 18-19) will protect stream temperatures and stream sediment levels and prevent hazardous materials from entering streams. Impacts to riparian reserves were described in the EA on pages 60-67 and 73-77. Note: Because riparian reserve thinning has been deferred at this time, the impacts from riparian reserve thinning disclosed in the EA will not occur.
- d) Fire behavior will increase immediately following forest management activities and prior to slash disposal. After slash disposal treatments, fire behavior will be reduced (EA, p. 104 and 106). Impacts to fuels are disclosed in the EA on pages 103-106.

- e) The effects of the Twin Ranch project on carbon storage will result in the transfer of 50 metric tonnes of live tree carbon to other pools such as lumber, on-site dead woody debris, biomass, and pulp wood. The total carbon dioxide emitted as a result of this project is considered negligible in the context of total U.S. emissions. Thinning will result in .000001 percent and selection harvest in .0000001 percent of current U.S. emissions. The Twin Ranch project will result in net carbon storage of -1,828 metric tonnes for a 20-year period and 18,512 metric tonnes for a 100-year period. The carbon storage analysis is included in the EA on pages 109-119.
- f) The Twin Ranch project will provide economic benefits through the harvest of timber by providing jobs and contributing to community stability. The project will result in an estimated return to the Federal treasury of about \$117,000. Direct employment from timber harvest and processing will result in approximately 41 full-time equivalent jobs. The impacts to economics are discussed in the EA on pages 123-126.
- g) No noxious weed species targeted by the BLM for treatment have been detected in the Twin Ranch Project Area, although populations exist within a few miles of the treatment units. The Twin Ranch Forest Management project will minimize or avoid the potential for the introduction or spread of existing noxious weed populations by implementing noxious weed project design features (EA, p. 19, PDF 20-22).
- h) Impacts to Endangered Species Act (ESA) listed threatened and endangered species are discussed in CEQ consideration number 9.

2. The degree to which the selected alternative will affect public health or safety.

The Twin Ranch Forest Management project will not significantly or adversely impact health or safety because:

- treatment activities will meet Occupational Safety and Health Association regulations for worker and public safety,
- fire hazard and risk will be decreased in selection harvest stands (EA, p. 106), and
- prescribed burning operations will follow all requirements of the Oregon Smoke Management Plan and the Department of Environmental Quality Air Quality and Visibility Protection Program.

3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas.

The Twin Ranch Forest Management Project Area does not contain and will not impact park lands, prime farm lands, wild and scenic rivers, or ecologically critical areas (EA, p. 23). Where required, the BLM completed surveys and inventories to identify areas with unique characteristics. This allowed the BLM to design the project in such a way to avoid impacts to these features as follows:

- Cultural surveys for the Project Area were completed and the project archaeologist assessed the project as “No Effect Determination, No Resources.”
- Harvest treatments will not occur within wetlands; therefore, wetlands will not be destroyed, lost, or degraded in accordance with Executive Order 11990, Protection of Wetlands.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The effects of the Twin Ranch Forest Management project are similar in nature to those of other harvest and road-related treatments that have been implemented within the scope of the Medford District Resource Management Plan and Northwest Forest Plan. The anticipated effects of the harvest and road-related projects, documented in the EA, are well supported with referenced literature throughout the EA. The effects of the selected alternative are described in Chapter 3 of the EA (p. 23-128).

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The analysis did not indicate this action will involve any unique or unknown risks outside of those addressed and anticipated in the EISs for the Medford District Resource Management Plan and the Northwest Forest Plan. The anticipated effects of implementing the Twin Ranch Forest Management project are similar in nature to the effects estimated and observed for other forest management treatments implemented on lands in the Medford District BLM are well supported with referenced literature throughout the EA.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about future considerations.

The decision to implement Alternative 4 of the Twin Ranch Forest Management project will not set any precedents for future actions with significant effects. The Twin Ranch Forest Management project will implement actions approved for stand treatment under the 1995 Medford District Resource Management Plan. Reducing tree mortality and restoring the vigor, resiliency, and stability of forest stands are necessary to meet land use allocation objectives. Any future action will have its own set of conditions and will be subject to a new environmental analysis.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

The analysis did not identify any significant cumulative impacts outside of those addressed and anticipated in the EISs for the 1995 Medford District Resource Management Plan and the Northwest Forest Plan. The analysis was performed at multiple scales and included current conditions, current actions, and foreseeable future actions on both private and Federal lands (EA, p. 23-128).

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss of destruction of significant scientific, cultural or historical resources.

The project archaeologist surveyed the Project Area for cultural and historic resources. The action will not affect objects listed on the National Register of Historic Places, nor will it cause destruction of significant scientific, cultural, or historic resources because none were identified during surveys. If cultural resources are located during project implementation, the project will be stopped and the BLM archaeologist will determine appropriate mitigation.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

T&E Plant Species

The Twin Ranch Forest Management project is outside the ranges of the three Federal endangered plant species found in the Butte Falls Resource Area (*Lomatium cookii*, *Limnanthes floccosa* ssp. *grandiflora*, and *Fritillaria gentneri*), no sites have been discovered in the area during past surveys, and the units do not contain suitable habitat for these three threatened and endangered (T&E) plants. Therefore, the proposed action will be a *no effect* ESA determination for threatened and endangered plant species (EA, p.127).

T&E Fish Species

The Twin Ranch Project Area contains one T&E fish species: Southern Oregon/Northern California coho salmon. The BLM concluded the harvest treatment for the Twin Ranch Forest Management project will be a *no effect* Endangered Species Act (ESA) determination for federally threatened Southern Oregon/Northern California coho salmon, coho critical habitat, and essential fish habitat because (EA, p. 67-77):

- 190-foot riparian reserves will be maintained on perennial and long duration streams,
- long-term large woody debris (LWD) potential will be improved, and
- no-cut buffers will maintain existing stream temperatures.

The road realignment, associated culvert installation, and adjacent timber harvest on an intermittent non-fish-bearing stream in the Twin Ranch Forest Management Project were originally consulted on in the biological assessment for the 2006 Bowen Arrow Forest Management Project. In January 2007, NOAA Fisheries issued a letter of concurrence (NMFS Number: 2007/06304) for the road relocation project and adjacent timber harvest in T35S, R3E, section 7. The road realignment, culvert installation, and adjacent timber harvest will be implemented as it was originally designed and consulted on. These projects *may affect, is not likely to adversely affect* Southern Oregon/Northern California coho salmon, coho critical habitat, or essential fish habitat and are consistent with the NOAA Fisheries letter of concurrence.

T&E Wildlife Species

The Twin Ranch Forest Management Project will treat 608 acres of federally threatened **northern spotted owl** habitat using selection harvest and commercial thinning. Spotted owl habitat on 255 acres will be downgraded from nesting, roosting, and foraging habitat to dispersal habitat. Harvest in 353 acres will “treat and maintain” dispersal habitat. All RA32 stands will be deferred from harvest under Alternative 4. Snags that do not have to be felled for safety reasons and existing coarse woody debris will be left in the stand will remain after the action (EA, p. 97).

The Twin Ranch project may affect northern spotted owls because proposed timber harvest will reduce suitable owl habitat within the provincial radius (1.2 miles) of three 100-acre known northern spotted owl activity centers. Surveys have been and will continue to be conducted in the known sites and suitable habitat within the project units and 1.2 miles outside the Project Area using current protocol to determine if spotted owls are using the area (EA, p. 97-98).

The downgrade of nesting, roosting, and foraging habitat to dispersal habitat is not expected to result in harm to individual spotted owls because there are currently no known resident spotted owls in the

Project Area vicinity. The project will likely result in the affected areas having a reduced capability to support nesting, roosting, and foraging due to habitat changes caused by timber removal (EA, p. 98).

RA32 stands maintain the best spotted owl habitat in the Project Area. Maintaining forest with large diameter trees, high amounts of canopy cover, and decadence components such as broken-topped live trees, mistletoe, cavities, large snags, and fallen trees will not further intensify competitive interactions between spotted owls and barred owls as would occur if the amount of shared resources was decreased (EA, p. 98).

The BLM completed formal consultation with the US Fish and Wildlife Service (Service) as required by the Endangered Species Act. The Service concurred with the BLM's determination the Twin Ranch project *may affect, is likely to adversely affect* the northern spotted owl or designated northern spotted owl critical habitat. The BLM received a Biological Opinion (BO) from US Fish and Wildlife Service on July 19, 2010 (BO# 13420-2010-F-0107).

In addition, the project will be a *no effect* ESA determination for the federally threatened vernal pool fairy shrimp because the Project Area is outside the range of that species.

10. Whether the action threatens a violation of Federal, State, or Local law or requirements imposed for the protection of the environment.

The selected alternative will not violate Federal, State, or local environmental protection laws. Project design features, an integral part of this project, ensure project activities comply with the 1995 ROD/RMP, as well as legal requirements applicable to this project (EA, p. 8-9).

Finding

I have determined the Twin Ranch Forest Management Project does not constitute a major Federal action having a significant effect on the human environment; therefore, an environmental impact statement is not necessary and will not be prepared. This conclusion is based on my consideration of the Council on Environmental Quality's criteria for significance (40 CFR §1508.27) with regard to the context and the intensity of the impacts described in the EA, and on my understanding of the project, review of the project analysis, and review of public comments. As previously noted, the analysis of effects has been completed within the context of the Medford District Resource Management Plan and the Northwest Forest Plan. This conclusion is consistent with those plans and the anticipated effects are within the scope, type, and magnitude of effects anticipated and analyzed in those plans. The analysis of project effects has also occurred in the context of multiple spatial and temporal scales as appropriate for different types of impacts and the effects were determined to be insignificant.



8/16/10

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Date